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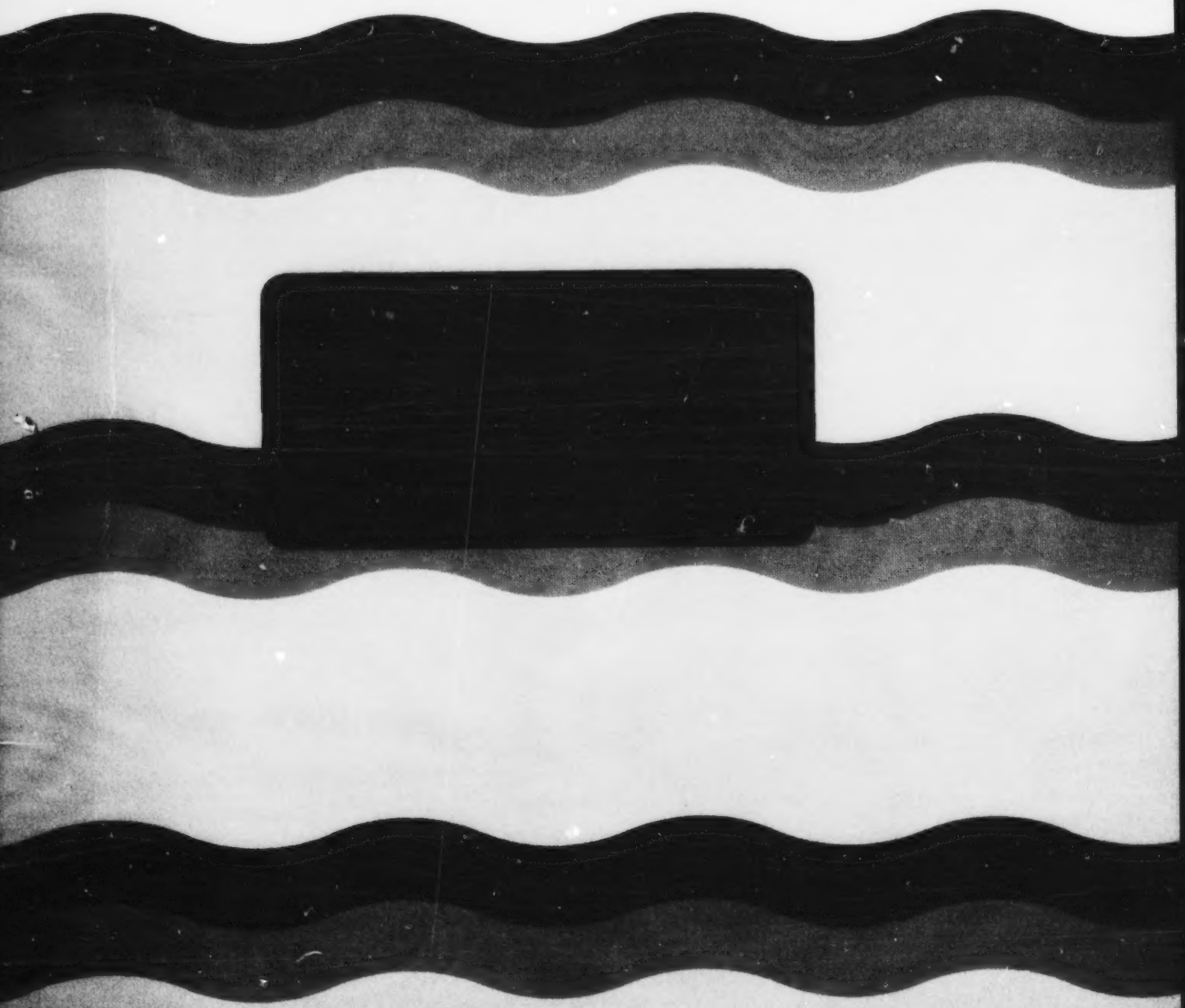
TP 8294

Marine Casualty Investigations

Enquêtes sur les accidents maritimes



Canada

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COMMERCIAL VESSELS

Summaries of Reports of Investigations
into Marine Casualties and Accidents
Aboard Ships

Issue No. 9 January 1990

Summaries of Commercial Vessel Marine Casualties and Accidents

This publication summarizes investigation reports on marine casualties and/or marine accidents involving commercial vessels and other craft, excepting fishing vessels, which were investigated by the Marine Casualty Investigation Division of Transport Canada and is published three times a year. There is another publication covering fishing vessels.

Note:

1. A glossary of terms and abbreviations used can be found at the end of this publication.

2. Unless stated otherwise, all times mentioned in this publication are local times.

3. Unless stated otherwise, all Regulations referred to in this publication are made pursuant to the Canada Shipping Act.

4. Unless stated otherwise, all vessels referred to in this publication are Canadian.

The full report of the summaries contained herein may be obtained by writing to:

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Their contents may be deficient and misleading if used in any other process and are not to be used or admitted in evidence in any legal proceedings, either civil or criminal, arising out of any casualty described therein. The statements, opinions and findings in the reports and summaries are those of the Marine Casualty Investigations Division only and do not constitute admissions made by or on behalf of Her Majesty the Queen in right of Canada.

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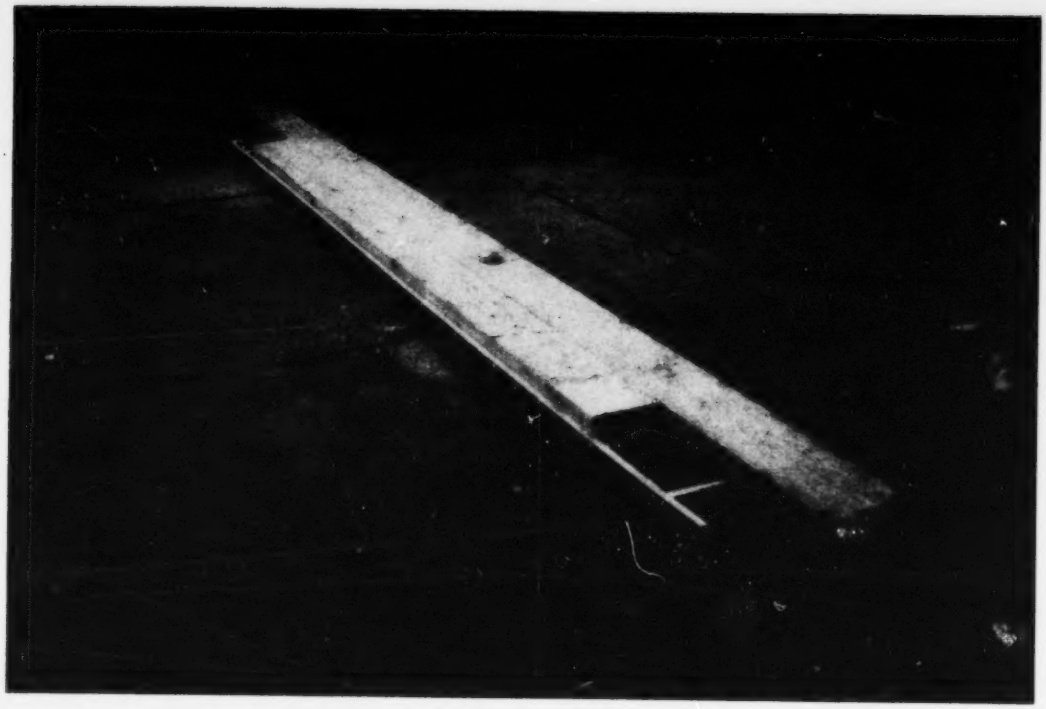


Reconstruction of gangway used - consists of aluminum ladder and two wooden planks.

Reconstruction de la passerelle d'embarquement - celle-ci consiste en une échelle d'aluminium recouverte de deux planches de bois.

Area lug welded to sidewall.

Endroit où le taquet a été soudé sur la paroi.

Showing positioning of gangway at time of accident.

Emplacement de la passerelle d'embarquement au moment de l'accident.

"S&R 223"

Death of shore worker, Nanaimo, B.C. January 2, 1989.

Summary

The "S&R 223" is a non-self-propelled steel barge of registered length 35.1 m, breadth 12.8 m and 513 gross tonnage, built in 1960. She is of conventional design with a slightly cambered deck-loading area and is fitted with sidewalls port and starboard. The ends of the deck area forward and aft are open to facilitate loading and unloading of cargoes such as gravel, dredge spoil, etc. On December 19, 1988, some repairs to the deck of the barge were commenced, engaging two self-employed ironworkers (welders) who were using their own and rented equipment for the work.

At about 0750, January 2, 1989, the two welders arrived at the work site and at about 0810 they installed a gangway between the wharf and the port side of the barge at the after end. The gangway consisted of an aluminum ladder laid horizontally from the wharf to the barge, and on which were placed two wood planks, side by side. The welders were wearing personal flotation devices of the work-vest type.

The weather was fine with sky overcast, the wind and sea were calm, and the air temperature was 4° C (39° F). There had been 2.4 mm (0.1 in) of rain overnight, which had stopped at about 0600, and walking surfaces on the wharf and the deck of the barge were wet.

Shortly after 0810, a portable welding machine located on the wharf was started and one welder proceeded across the gangway on to the barge and commenced welding a lug to the inside of the starboard sidewall, amidships. At about 0825 the second welder brought some small items of equipment on to the barge and then returned to the wharf. At that time the first welder was still engaged in welding the lug to the sidewall.

At about 0835 the second welder returned on board the barge and observed that the lug had been welded on to the sidewall but his colleague was nowhere in sight. He shouted, looked outside the sidewalls and over towards the wharf, but was unable to locate him. As the second welder started to leave the barge and was crossing the gangway, he saw his colleague floating still in the water alongside the barge and underneath the wharf. After requesting the security guard on the wharf to telephone the police and ambulance service he returned to the scene of the accident and, standing down on the wharf timbers and using a pike pole, was able to pull the victim over to a log fender between the barge and the wharf pilings and keep his head clear of the water.

The local R.C.M.P. detachment was notified at 0847 and an officer arrived at the scene at 0851, immediately descending a steel cable hanging from the wharf into the water to assist the unconscious victim. Mouth to mouth resuscitation was applied but cardio-pulmonary resuscitation (CPR) was not possible under the existing conditions. The fire department and ambulance service personnel were on the scene at 0855 and 0858, respectively, and the victim was retrieved from the water without delay. Reportedly, when the victim was retrieved, he was not wearing a personal flotation device. Revival procedures were applied to the victim on the wharf, before he was transported by ambulance to hospital where he was admitted, unconscious, at 0914.

Despite receiving appropriate treatment in the hospital, the victim did not regain consciousness and died at about 0630, January 3. An autopsy revealed no abnormalities or disease which may have contributed to death, neither was there any sign of injury. Blood tests revealed no trace of alcohol and his death was attributed to complications arising from the effects of drowning and/or hypothermia resulting from his fall into the water.

Findings

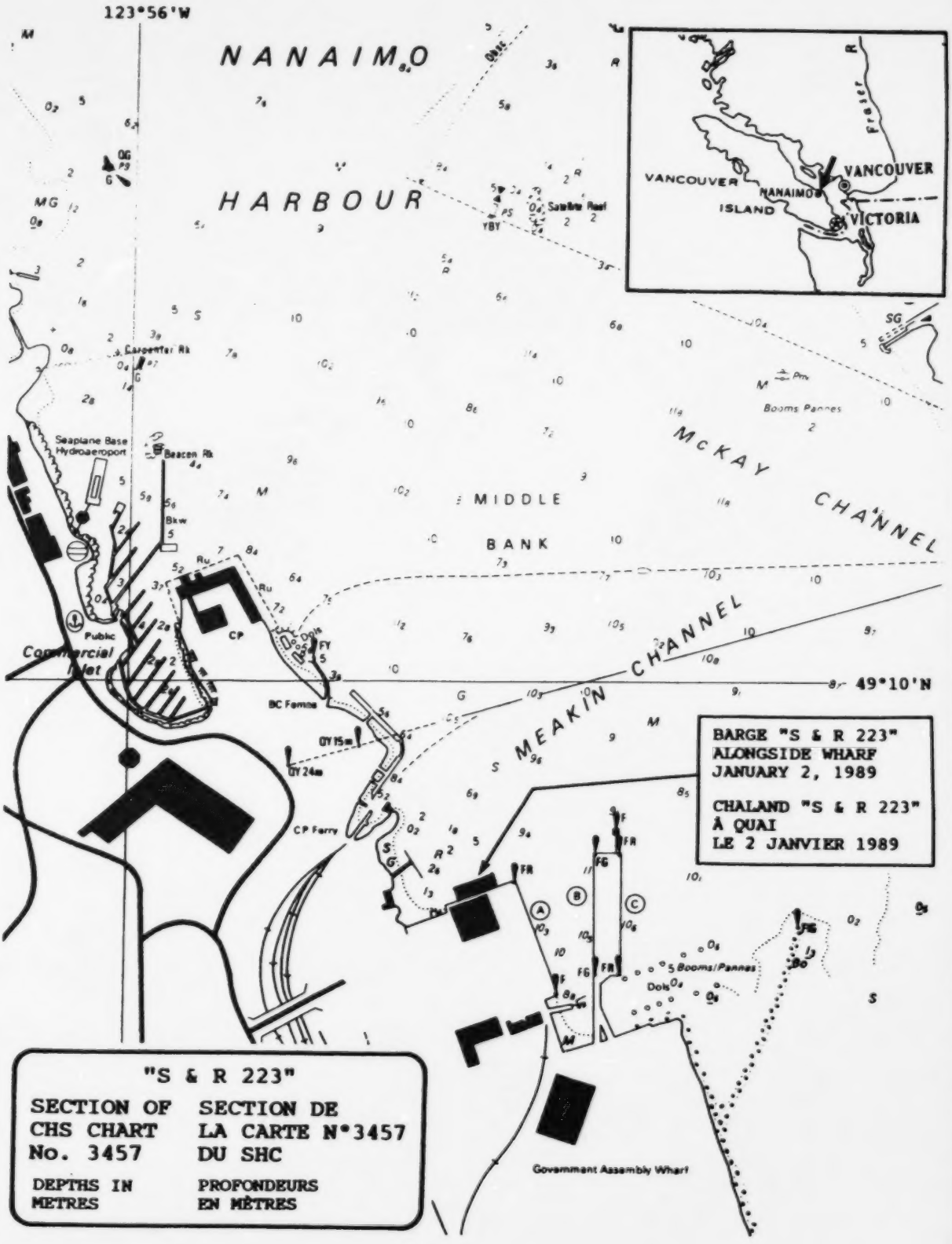
The victim met his death due to an accident which caused him to fall into the water between the wharf and the barge "S&R 223" alongside at Assembly Wharf, Nanaimo, B.C., on January 2, 1989.

It is not known what caused the victim to fall but it would appear that the following factors contributed to the accident and his subsequent death:

- a safe means of access was not installed between the wharf and the barge,
- a safety net was not fitted under the gangway in use at the time of the accident, and
- the victim was not wearing either a buoyancy aid or a lifejacket at the time of the accident.

Other Findings

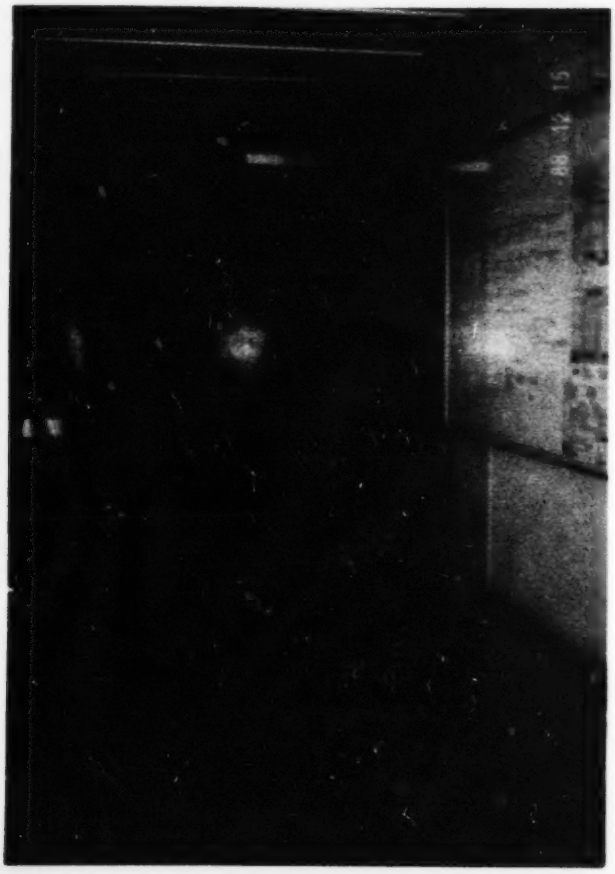
The prompt and dedicated actions of the R.C.M.P. officer who entered the water to assist the victim are commendable.


123°56'W
NANAIMO
HARBOUR
MIDDLE
BANK
MCKAY
CHANNEL
MEAKIN
CHANNEL
49°10'N
Carpenter Rk
Seaplane Base
Hydroaeroport
Beacon Rk
Public
Commercial
Float
CP
BC Ferries
CY 15m
CY 24m
C.P. Ferry
Booms Pannes
Booms/Pannes
Dols
Government Assembly Wharf
VANCOUVER
VANCOUVER
ISLAND
NANAIMO
VICTORIA
Fraser R.
BARGE "S & R 223"
ALONGSIDE WHARF
JANUARY 2, 1989
CHALAND "S & R 223"
À QUAI
LE 2 JANVIER 1989
"S & R 223"
SECTION OF CHS CHART No. 3457
SECTION DE LA CARTE N°3457 DU SHC
DEPTHS IN METRES
PROFONDEURS EN MÈTRES

"SIR WILFRED LAURIER"

Right, stairway down which victim fell.

À droite, escalier dans lequel la victime est tombée.



Door in the starboard alleyway on the upper deck leading to the stairway down to the main deck.

À gauche, porte dans la coursive tribord du pont supérieur donnant accès à l'escalier pour descendre sur le pont principal.

"SIR WILFRID LAURIER"

Injury to crew member, Sorel, Quebec, December 14, 1988.

Summary

The "SIR WILFRID LAURIER" is a 3,812 gross ton navaid tender with ice breaking capability. She was built in 1986 and is operated in the Laurentian region by the Canadian Coast Guard.

On December 14, 1988, the vessel was tied up in the port of Sorel, Quebec, and that evening several of the crew members took the opportunity to go ashore. About 2315, three crew members returned to the vessel, each having consumed about two beers.

Having boarded by the gangway located on the port side of the boat deck, they went down onto the upper deck and entered the accommodation by the port after door. They then crossed over to the starboard side to go down to the main deck by the inside stairway.

The second person to use this stairway went down a few steps and then fell head first to the foot of the stairway without attempting to hold on or crying out.

His companions hurried to his side and found that he was unconscious and bleeding from the nose. The OOW was alerted and an ambulance was called. While waiting for the ambulance they loosened his collar and lowered the victim's feet which had been up on the first step.

The ambulance arrived on the scene at 2340 and the attendants placed the victim on a stretcher to transport him to a hospital in Sorel. After examination, the doctors transferred the victim to the neurosurgical department of another hospital. It was three days later before the victim regained consciousness.

Findings

On December 14, 1988, when three seamen on the buoy tender/supply vessel "SIR WILFRID LAURIER" returned from ashore, one of them fell down a stairway inside the accommodation and sustained serious injuries.

It would appear that the following factors contributed to the accident:

- the victim had consumed alcohol in the two to three hours before his fall;

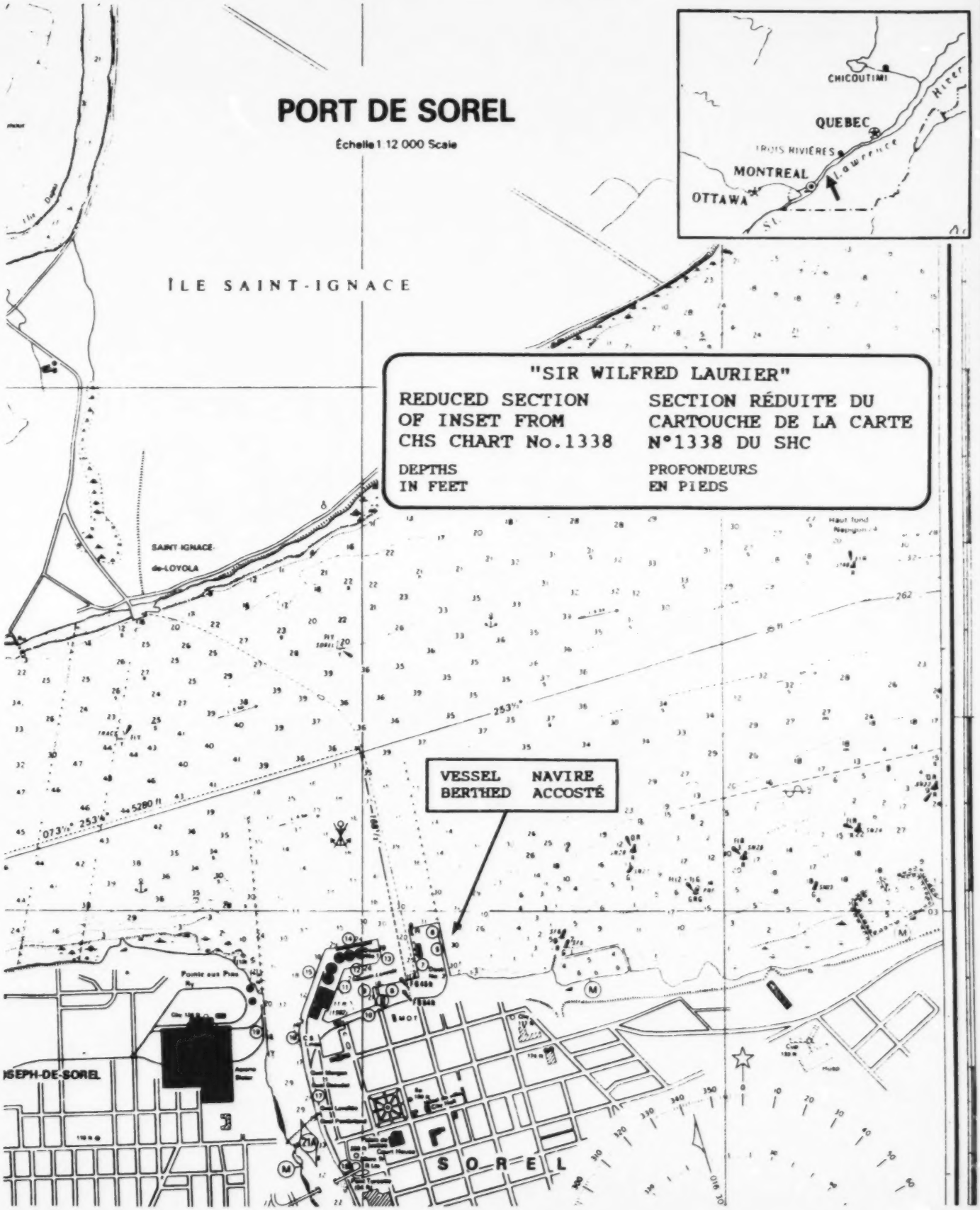
- the victim felt physically unwell when he began to descent the stairway inside the accommodation;

- the victim had on board certain medication prescribed by a doctor to regulate his blood pressure but he did not take it regularly.

Other Findings

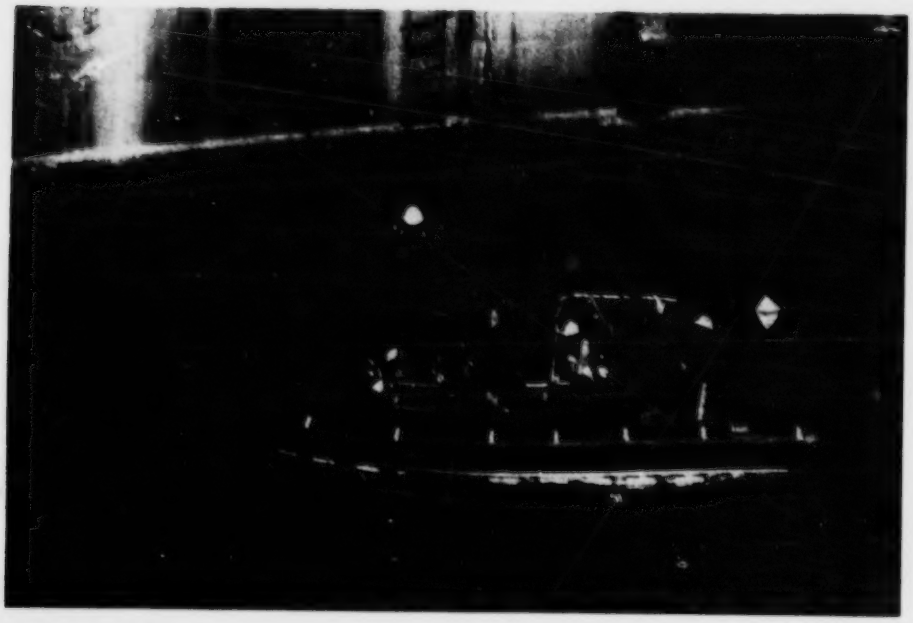
The stairway down which the victim fell was clean, not slippery, well-lit, clear of all obstructions and met the requirements of the Hull Construction Regulations.

The victim was wearing shoes and rubber overshoes. He did not slip.


PORT DE SOREL
Échelle 1 12 000 Scale
ILE SAINT-IGNACE
CHICOUTIMI
QUEBEC
TROIS RIVIÈRES
MONTREAL
OTTAWA
"SIR WILFRED LAURIER"
REDUCED SECTION OF INSET FROM CHS CHART No.1338
SECTION RÉDUITE DU CARTOUCHE DE LA CARTE N°1338 DU SHC
DEPTHS IN FEET
PROFONDEURS EN PIEDS
VESSEL BERTHED
NAVIRE ACCOSTÉ
SAINT IGNACE-de-LOYOLA
SOREL

General view of "KULLUK" showing typical ice conditions at time of evacuation.

Vue générale du "KULLUK" montrant les conditions habituelles de glace au moment de l'évacuation.



Reboarding rig from FRC.

Remontant à bord de la plate-forme d'une embarcation rapide de sauvetage.

"KULLUK"

Evacuation of drilling unit after gas blow-out, Beaufort Sea, June 5, 1989.

Summary

The "KULLUK" is a non-propelled, floating drilling barge which is ice-strengthened and designed for extended-season operations in the Beaufort Sea. Her hull shape is that of an inverted, truncated cone, she has a maximum hull diameter of 80.77 m and is of 29,147 gross tons. In early June, 1989, while drilling for natural gas at the Immiugak well site in Mackenzie Bay she was moored to a 12-anchor spread, attended by the stand-by vessels "IKALUK" and "MISCAROO" and had on board a complement of 103 persons.

On June 4, at 2127, when a pocket of shallow gas was encountered, the resulting sudden flow of gas into the well bore created a potential uncontrolled situation and a 'red alert' was declared at 2130. Non-essential crew members had been mustered and the supply vessels took up evacuation stand-by positions. The alert was cancelled at 2235 but re-introduced at 2350 as the drilling crew attempted to control the well. The rest of the crew were not mustered but at 0100, June 5, fore and aft scramble nets were deployed as a precautionary measure.

At 1142, June 5, after a high level of gas was detected, the general alarm to muster the crew was again sounded and, at 1146, the rig went on 'black alert' indicating the need to evacuate. The "KULLUK" carries four, 54-person, lifeboats of the enclosed, ovate, self-propelled survival craft type which are suspended from mechanical davits. At 1200 two boats were boarded by 80 crew members, all wearing marine abandonment survival suits, and these boats were launched shortly afterwards. The weather conditions during the evacuation were conducive to a successful operation. It was reported to be cloudy with fog patches, with visibility otherwise 2 miles and a light north westerly wind. The sea was calm and there was 1/10 ice in the area. The air temperature was +5°C and the sea water temperature +1°C. In addition, the Fast Rescue Craft (F.R.C.s) from the stand-by vessels assisted with the launchings, maintaining radio contact with the lifeboats to advise regarding conditions beneath the boats. Both life-boats proceeded under their own power to the "IKALUK" where the crews and the boats themselves were taken aboard. The favourable weather conditions also allowed the upper hatches of the lifeboats to be opened, permitting ventilation. The third and fourth boats were launched at 1347 and 1440 carrying 14 persons and 9 persons respectively and these were taken aboard the "MISCAROO", which, with the senior personnel

now on board her, became the command vessel.

Of the 80 persons aboard the "IKALUK", and the 23 aboard the "MISCAROO", 60 were later airlifted by helicopter to the shore base at Nalluk, 4 to Tuktoyaktuk and the remaining 39 were accommodated aboard the "MISCAROO", "IKALUK" and the supply vessel "TERRY FOX".

During the ensuing 5 days, various advance parties boarded the "KULLUK" during daylight hours to determine the areas of lingering gas and to vent those areas. The rig returned to full operation June 10 and, prior to the resumption of drilling, she was relocated 700 m to the south-west.

1989 was the first year that all offshore personnel in the Beaufort were required to have a Basic Offshore Survival Course. This training was of undoubted benefit in enabling the crew to evacuate and re-board the unit in a competent and professional manner.

Findings

- the Canadian MODU "KULLUK" was successfully evacuated in daylight and good weather conditions after striking a pocket of shallow-gas whilst drilling at the Immiugak well-site in the Beaufort Sea;

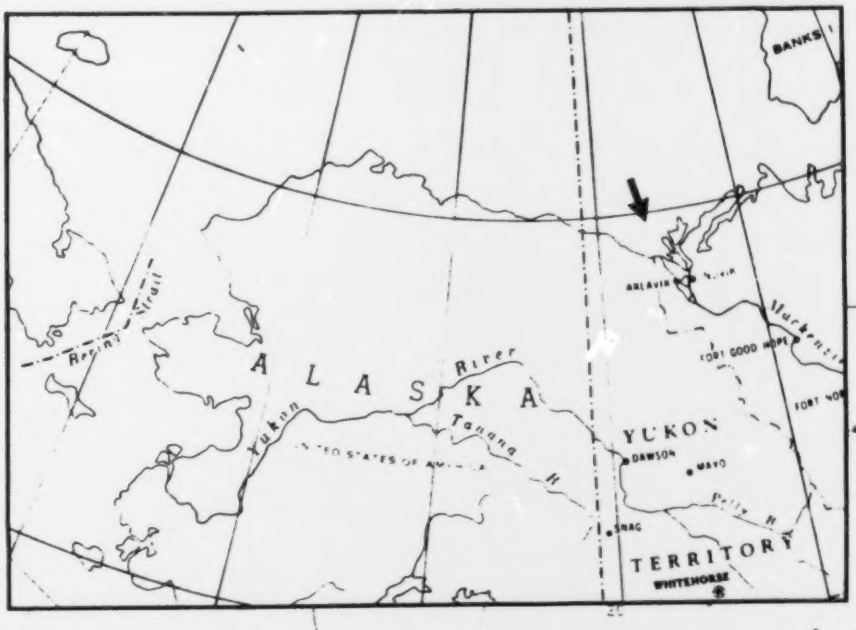
- the blow-out created a highly dangerous situation and the decision to bring the rig to 'black alert' and evacuate personnel was necessary;

- attempts by senior personnel to kill the well were unsuccessful; and

- the total evacuation and retrieval of personnel took some three hours and was carried out in an orderly manner, without difficulty.

Other Findings

The report on the causes of the blow-out and disposition of the well are the subject of a separate report by the Canada Oil and Gas Lands Administration.



POSITION OF MODU "KULLUK"
POSITION DU MODU "KULLUK"

GARRY TROUGH

MACKENZIE BAY

Tarsuit N-44 1980 Aband

Netserk B-44 1974 Aband

Adgo J-27 1976 Aband

Sarpik B-35 1976 Aband

Adgo C-15 1975 Aband

Garry P-04

Pelly I

Garry I

Recon Bnr

Olivier Islands

ELLICE ISLAND

"KULLUK"

SECTION OF CHS CHART No.7650

SECTION DE LA CARTE N°7650 DU SHC

DEPTHS IN METRES

PROFONDEURS EN MÈTRES

"TOVE COB"

View of vessel at Clarkson showing anchor cable leading astern under the ship.

Vue du navire à Clarkson montrant le câble de l'ancre portant vers l'arrière, sous le bâtiment.

Approximately 1'8"

Approximativement 1'8"

Approximately 3'2"

Approximativement 3'2"

Spare bower anchor of approximately the same size as the port anchor.

Ancre de bossoir de rechange ayant presque la même dimension que l'ancre de bâbord.

"TOVE COB"

Bottom damage, pollution, Clarkson, Ontario, April 26, 1989.

Summary

The 11,102 gross ton "TOVE COB" is a petroleum/chemical tanker with her navigating bridge, accommodation and machinery space located aft. She was built in 1968 and is registered in Singapore.

On April 25, 1989, the "TOVE COB" berthed at the refinery wharf at Clarkson, Ontario, to load approximately 8,750 t of gasoline for discharge at UK/European ports. She already had on board approximately 4,000 t of tallow which had been loaded earlier in Detroit and Toronto. The anticipated load of gasoline was to bring the "TOVE COB" to the maximum permissible 'Seaway draught' of 7.92 m (26').

The tug "STORMONT" had been engaged to assist the vessel in docking, and as the "TOVE COB" approached the berth, the pilot, who had the conduct of the vessel, asked that the port anchor be lowered to 'one shackle in the water' so that the vessel could dredge it in, as she went alongside, for additional control during the manoeuvre. Neither set nor drift was, in fact, experienced while berthing, the weather being fine with a light southerly wind, good visibility and the air temperature 10-11°C.

Once alongside, the ship was positioned at the cargo hose connection, the tug was dismissed and the pilot disembarked.

Both the master and the pilot realised the potential hazard of the ship's proposed loaded draught in relatively shallow water; that with the anchor lying on the lake bed it could be under the vessel, but after an attempt using the windlass was unsuccessful, no further effort was made to retrieve it. Cargo was loaded until the desire draught was reached. Shortly thereafter tallow was found in the water alongside the ship, having leaked from No. 2 port wing tank. Despite various corrective measures approximately 180 t of tallow escaped into Lake Ontario. Efforts to contain this tallow and retain it in the area west of the dock and/or alongside the ship were unsuccessful. Residual tallow ultimately came ashore at Burlington and Hamilton, some 12-14 miles to the westward.

Temporary repairs were carried out to the ship where the anchor had penetrated the bottom plating. The "TOVE COB" departed Clarkson, April 29, 1989, bound for U.K./European

ports with a draught of 7.16 m (23'6") fore and aft.

Findings

The "TOVE COB" was holed, with subsequent limited pollution, by settling during loading on her port anchor, due to an error of judgement on berthing the vessel. It would appear that the following factors contributed to the casualty:

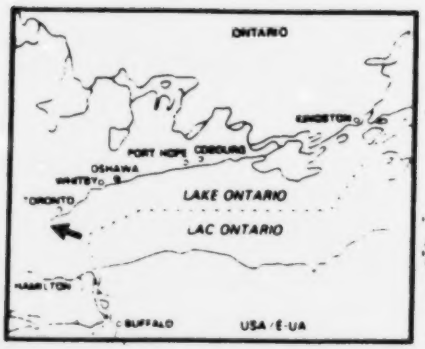
- the anchor was used to give better control of the vessel whilst berthing;
- no concerted effort was made to heave up the anchor after the ship was alongside and before she increased her draught;
- the vessel was loaded to a draught of 7.90 m (25'11") in comparatively shallow water without ensuring that the port anchor was clear of the ship, and
- the harbour bed in the area is shale rock.

Other Findings

Whilst tallow is environmentally unpleasant, unsightly and malodorous, it is not classed as a pollutant in terms of the Canada Shipping Act.

In an attempt to contain existing lost tallow it took some 4 hours to put the containment boom in place, by which time the leakage from the vessel had been stopped.

Although dredging an anchor is an acceptable part of a berthing manoeuvre, the use of ships' anchors in the vicinity of submarine pipelines, as at Clarkson, should be avoided, except in emergencies.



"TOVE COB"

REDUCED SECTION OF CHS CHART No. 2070

SECTION RÉDUITE DE LA CARTE N° 2070 DU SHC

DEPTHS IN FEET

PROFONDEURS EN PIEDS

MISSISSAUGA

PETRO-CANADA OIL REFINERY

RAFFINERIE DE PÉTRO-CANADA

APPROXIMATE AREA IN WHICH ANCHOR WAS WALKED-OUT

LIEU APPROXIMATIF OÙ L'ANCRE A ÉTÉ FILÉE

APPROXIMATE COURSE OF APPROACH OF "TOVE COB"

ROUTE APPROXIMATIVE DU "TOVE COB" DANS LES ATTÉRAGES

"STOLT CASTLE"

Vessel alongside. Navire accosté.

Tug "MICHAEL D MISENER". Remorqueur "MICHAEL D MISENER".

"STOLT CASTLE"

Struck by tug, Oshawa, Ontario, April 6, 1989.

Summary

The 11,240 gross ton, Liberian-registered "STOLT CASTLE" is an oil and chemical tanker with her bridge, engine-room and accommodation located aft. She has ten side tanks and is double-skinned from tank 5 to tank 9.

On the morning of April 6, 1989, the "STOLT CASTLE" was at anchor outside Oshawa harbour awaiting an improvement in the visibility to proceed inwards to berth. It was foggy when the vessel arrived, towards daybreak, from Hamilton, shortly after the Canadian registered, 123 gross ton tug "MICHAEL D. MISNER" which was to assist with the berthing manoeuvre. The tug reconnoitred and confirmed to the pilot on the "STOLT CASTLE" that there was no other shipping in the harbour and then tied up on the south wall to await the berthing of the "STOLT CASTLE".

Shortly, after 1100, with the wind light, the sea calm and visibility now about 2 miles, the "STOLT CASTLE" weighed anchor and proceeded into the harbour. Once inside the harbour entrance, a tow-line was taken aboard the "MICHAEL D. MISNER" and the "STOLT CASTLE" was turned to port through 180°. When the "STOLT CASTLE" was approximately 45 m from her berth, the tow-line was let go and the tug backed away, into the harbour basin, to await further instruction.

When the pilot requested that the tug push the "STOLT CASTLE" on the port quarter, the tug went ahead towards the "STOLT CASTLE" but when full astern was applied to slow her, the tug sheered to port and briefly listed to starboard such that her protruding starboard anchor struck and penetrated the shell plating of the "STOLT CASTLE" in way of No. 10 port wing tank; gasoline immediately began leaking from a ruptured seam. The time was 1230. Transfer of cargo from the damaged tank to the vessel's No. 9 wing tanks was begun at 1237; the tug remained pushing until released from the berthing manoeuvre at 1250.

CCGS "GRIFFON" was, at the time, tending navigational aids in the approaches to Oshawa harbour. The master of that vessel was advised of the casualty by the pilot aboard the "STOLT CASTLE" and supplied and placed an anti-pollution boom across the entrance to Oshawa Yacht marina.

The transfer of cargo ceased at 1353 when the leakage had stopped. It was estimated that 227 litres of gasoline has leaked into the harbour but this dispersed very quickly.

Repairs were carried out by ship's personnel to the specifications of the Classification Society and approved by the Ship Safety branch of the Canadian Coast Guard.

Findings

The Canadian tug "MICHAEL D. MISNER" struck the shell plating of the Liberian tanker "STOLT CASTLE" with her anchor, during berthing manoeuvres in good weather conditions, penetrating a cargo tank which resulted in the loss of approximately 227 litres of unleaded gasoline.

It would appear that the following factors contributed to the casualty:

- the starboard anchor on the tug was not completely home, allowing the flukes and tripping palms to protrude beyond the hull extremity of the vessel; and

- the large rubber fender on the stem was improperly positioned.

Other Findings

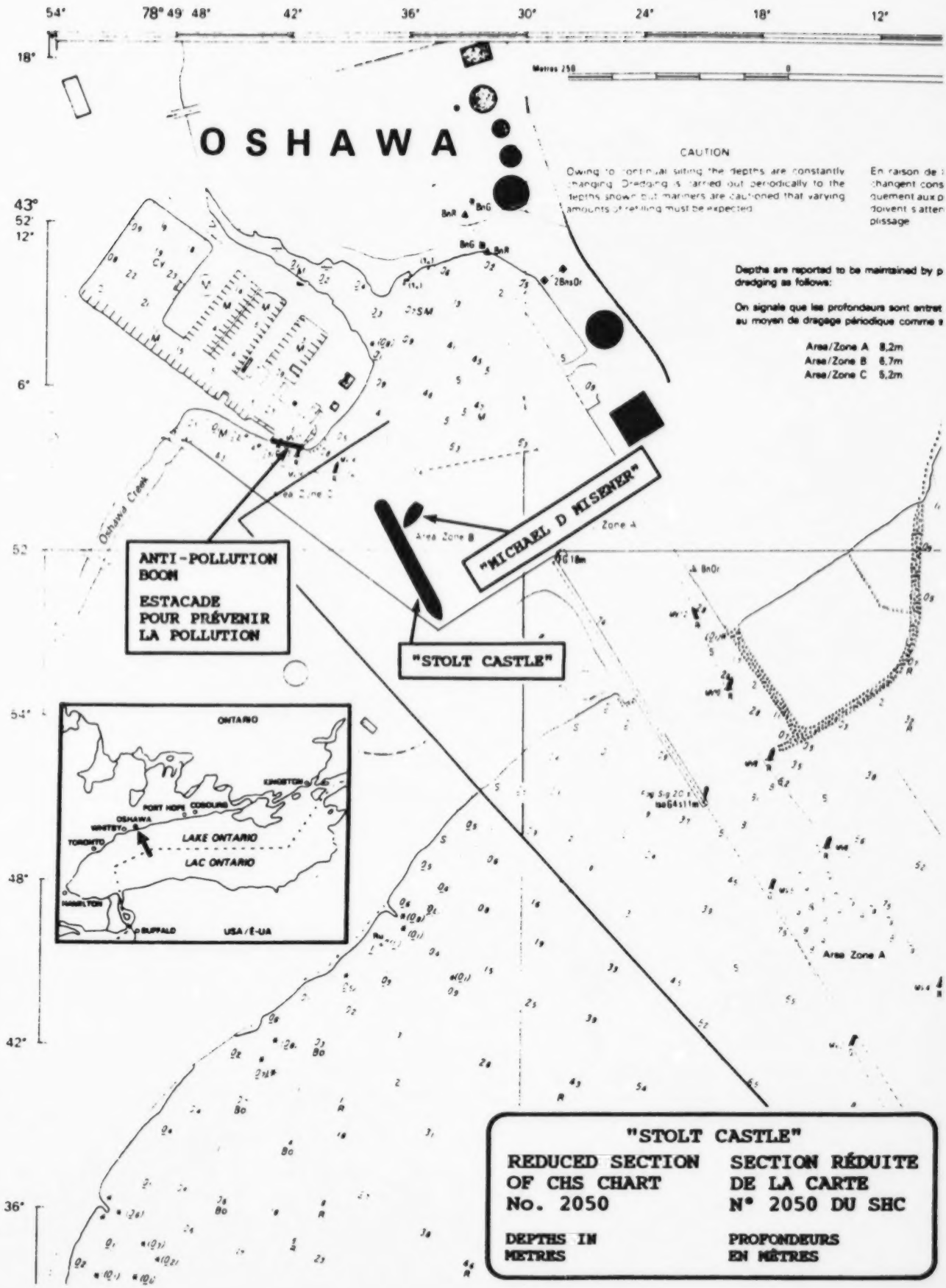
The prompt initiation of the transfer of the cargo aboard the "STOLT CASTLE" prevented a larger quantity spillage of a pollutant.

The small amount of unleaded gasoline spilled dispersed and dissipated quickly.

The response by the CCGS "GRIFFON" in deploying an anti-pollution boom and that of the local fire department was immediate.

Prior to the casualty, the tug was under way in restricted visibility but did not sound a fog signal.

The fact that the vessel was damaged was not immediately reported in accordance with the Shipping Casualties Reporting Regulations.



"STOLT CASTLE"

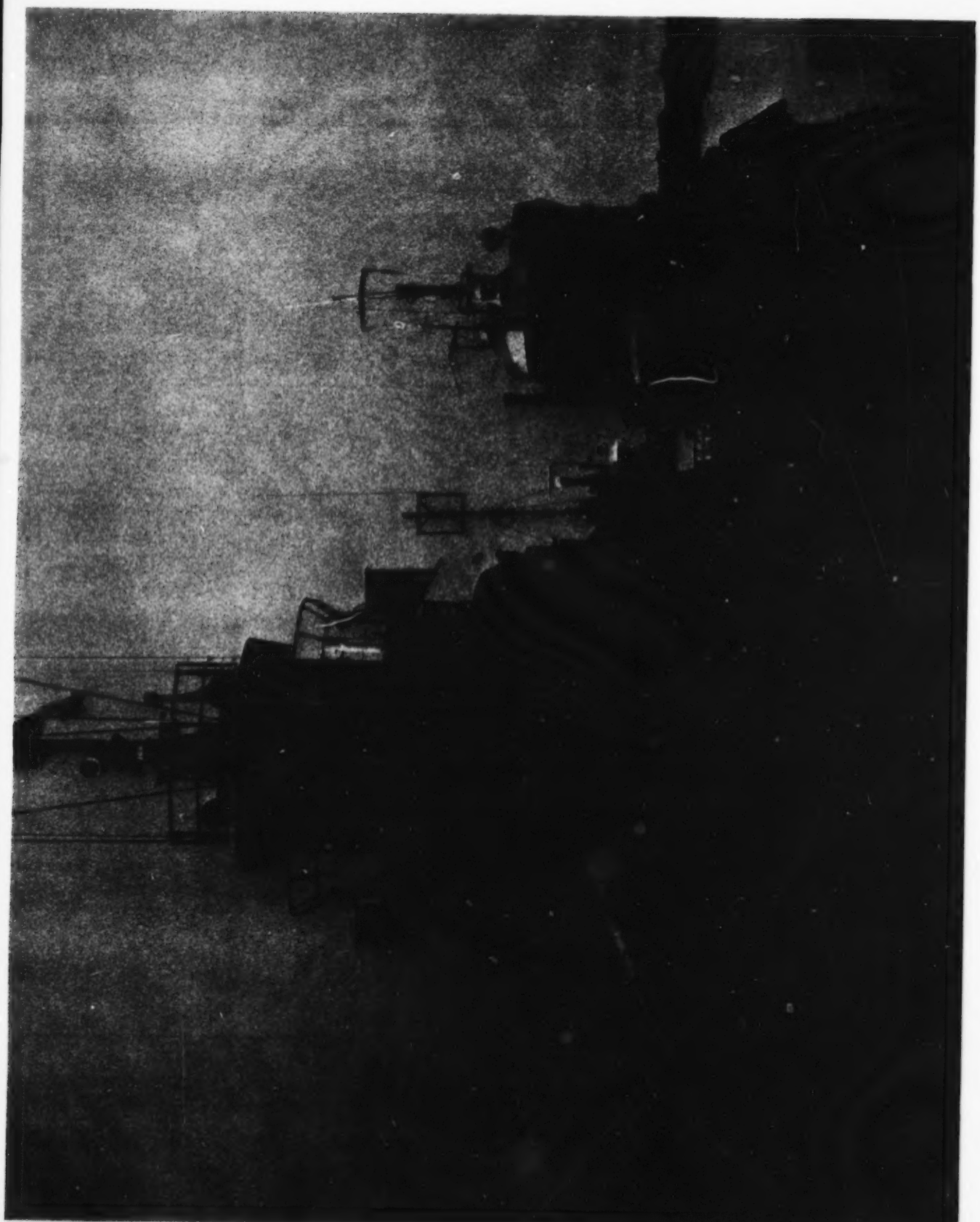
REDUCED SECTION OF CHS CHART No. 2050

SECTION RÉDUITE DE LA CARTE N° 2050 DU SHC

DEPTHS IN METRES

PROFONDEURS EN MÈTRES

"TUSKER" & "GLENADA"



"TUSKER/SCURRY"

Minor fires, grounding in Detroit River,
March 29/30, 1989.

Summary

The "TUSKER" is a conventional tug of 396 gross tons, built in 1958 and now registered in Toronto. She is fitted with a Kort nozzle and her main engines are rated at 1059 kW. The 3,831 gross ton tank barge "SCURRY" was converted from a conventional tanker, the "HUDSON TRANSPORT", in 1988. She is registered in Toronto, is non-self-propelled and her stern is notched to accept a pushing tug.

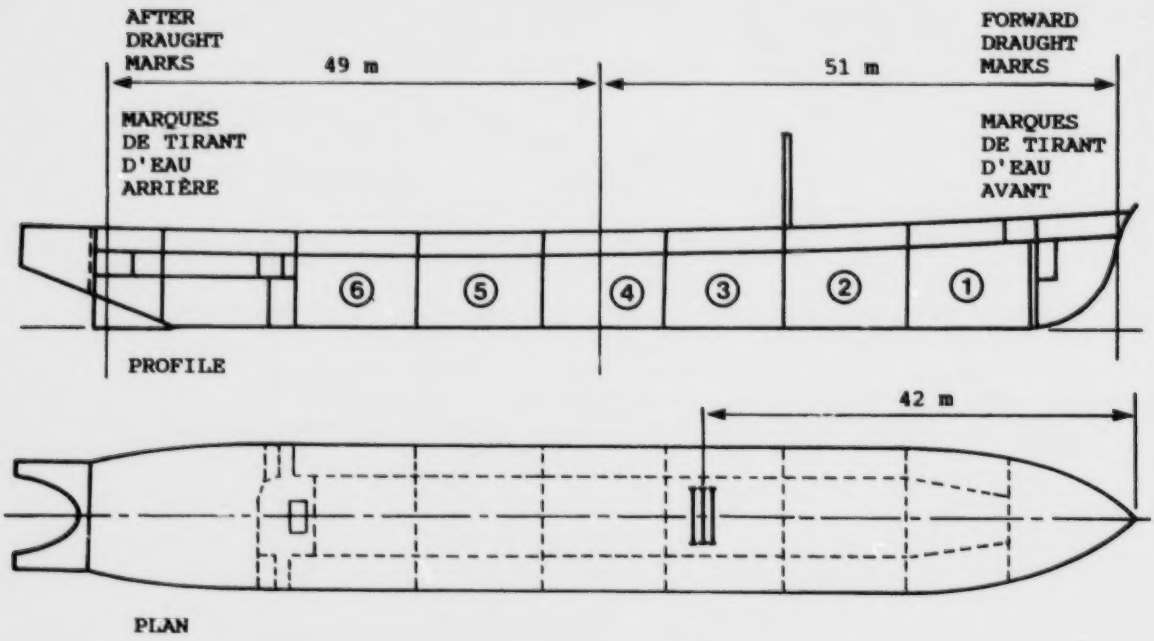
On March 26, 1989, at 0900, with the "TUSKER" pushing the "SCURRY", the two vessels left Sarnia, Ont., as a tug/barge combination unit bound for Toledo, Ohio, to load a cargo of carbon black feed stock destined for Sarnia. During the ensuing seven hours there were seven small fires within the machinery spaces of the "TUSKER" resulting in the port main engine being shut down and taken out of service at 1550 that afternoon. The tug and barge continued to Toledo where the cargo was loaded onto the "SCURRY" and, with the assistance of the U.S. tug "MONTANA", the unit departed on the return trip to Sarnia at 1100, March 28, with the "TUSKER" still powered by the starboard engine only.

Due to strong, south-south-westerly winds and rough seas, the "SCURRY" was brought to an anchor near the entrance to the West Outer channels of the Detroit river at 1743 while the 114 gross ton Canadian tug "GLENADA" was dispatched from Sarnia to assist the "TUSKER" with the "SCURRY". When the "GLENADA" rendezvoused with the unit the tow was resumed, with the "GLENADA" securing a tow-line to the bow of the "SCURRY". As the tow approached the Detroit River light, the "SCURRY", which had been erratic under tow, overran the tow-line and the "GLENADA" was girded, taking water in through fan intakes above the engine-room. The master quickly adjusted the engine controls and the tow-line parted allowing the "GLENADA" to return to the upright.

The "TUSKER" managed to hold the "SCURRY" in the channel, but, as the steering was difficult and as there were three upbound vessels astern, the "SCURRY" was anchored at 0240, close north-north-west of buoy "D30". At 0410, towing preparations were complete and the anchor was weighed. the "SCURRY" however, had drifted and grounded close north-north-east of buoy "D30". VTS was contacted and the appropriate authorities subsequently advised.

The U.S. tug "INDIANA" was called upon to assist and

GENERAL ARRANGEMENT "SCURRY" PLAN D'ENSEMBLE



"TUSKER", "SCURRY", "GLENADA", "INDIANA" with U.S. tug "AMAZON" in background (no propulsion on "TUSKER").

"TUSKER", "SCURRY", "GLENADA", "INDIANA" accompagné du remorqueur américain "AMAZON" à l'arrière plan ("TUSKER" non-propulsé).

arrived on site at 0900 and the "SCURRY" was refloated at 1712. Following clearance from the Canadian Coast Guard, the three tugs continued the upbound passage.

Shortly after 0000, March 30, the duty engineer informed the master of the "TUSKER" that the coupling of the remaining engine was overheating and that the engine would have to be stopped. After advising the masters of the "GLENADA" and the "INDIANA", the engine was stopped. Although it was felt that the "GLENADA" and "INDIANA" could restrain the "SCURRY", she was adversely affected by a south-westerly current, estimated at 3 knots, and grounded 2.5 cables north of Peche Island light at 0010, March 30, 1989. Immediate but unsuccessful efforts were made to refloat the barge and VTS was advised at 0121. All appropriate U.S. and Canadian authorities were also made aware of the situation.

Efforts continued throughout the day to refloat the "SCURRY" and she was finally refloated at 2240 with 5 tugs assisting and proceeded to an anchorage west of Belle Isle. After inspection by U.S. and Canadian authorities, the "SCURRY" was cleared to proceed and departed from the anchorage at 1507, April 1, arriving at Sarnia at 1401, April 2, 1989.

There was neither pollution, nor damage caused by either of the groundings but the mate from the "TUSKER" was slightly injured aboard the "GLENADA" when she girded.

Findings

The Canadian tank-barge "SCURRY" grounded on two occasions whilst upbound in the Detroit River.

In the first instance, she grounded in clear but dark conditions after being brought to anchor, due to not being held in the channel by the attending tug.

It would appear that the following factors contributed to the first grounding:

- the "TUSKER" was operating on reduced power because one engine had to be shut down, due to unburnt fuel oil bypassing the pistons and catching fire to the exhaust;

- the assist tug "GLENADA" girded and broke her tow line;

- the "TUSKER" was unable to effectively control the "SCURRY" in the channel in the vessel traffic

conditions prevailing;

- the tug/barge combination was anchored at the channel side;

- the channel was only 305 m (1000') wide, and

- water level was reduced by previous prevailing winds and the barge was subject to the wash of passing vessels.

In the second instance, she grounded in clear but dark conditions due to loss of control by the attending tugs.

It would appear that the following factors contributed to the second grounding:

- the pushing tug "TUSKER" lost her one operative engine immediately prior to the grounding, due to mud in the cooling system following operation in very shallow water;

- the barge was adversely affected by the river current, and

- the "GLENADA" and "INDIANA" were unable to control the barge as she sheered.

Other Findings

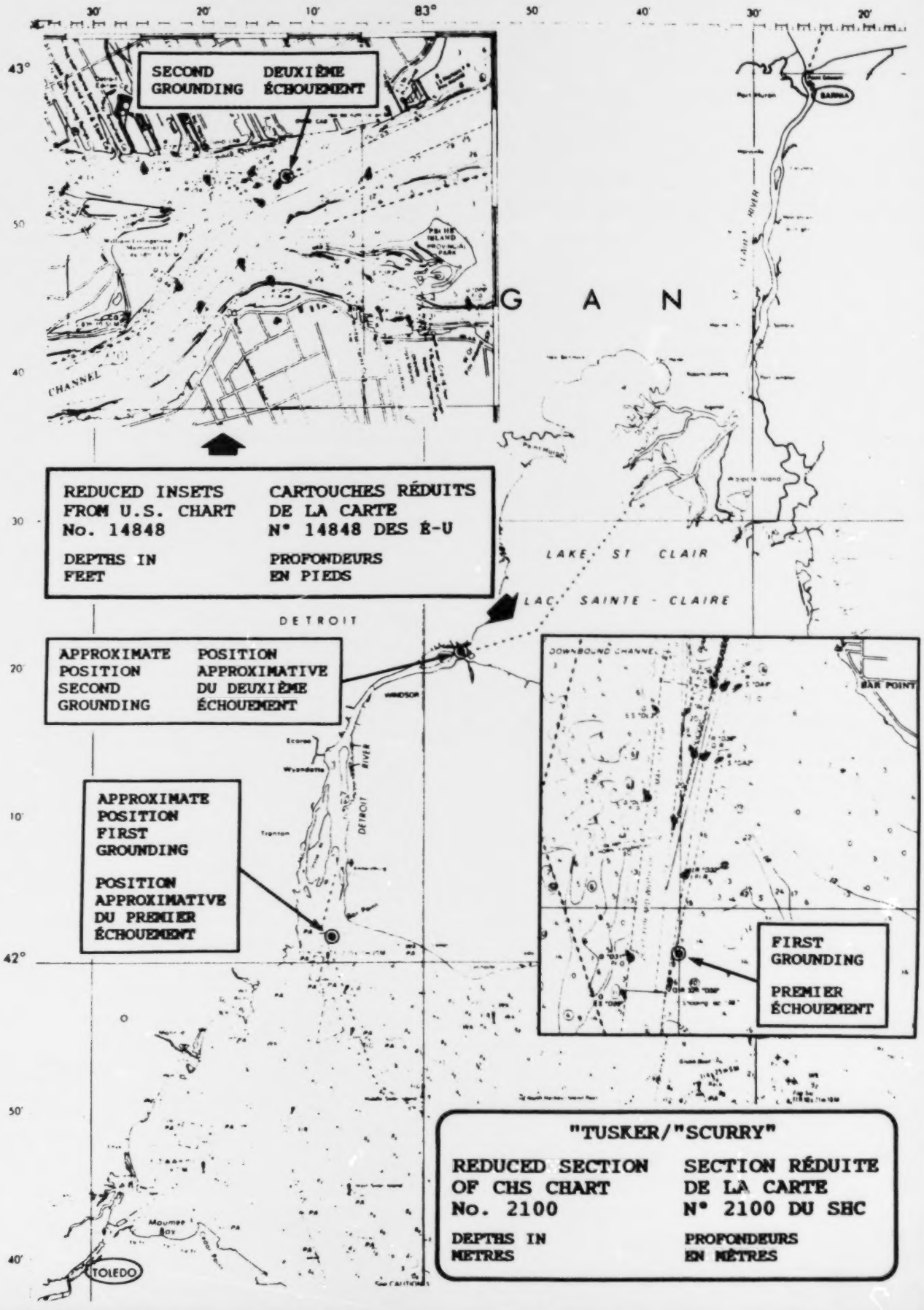
Fuel oil bypassed the pistons in the port engine of the "TUSKER" because the components were worn.

Neither the "TUSKER" nor the "SCURRY" were originally designed for a pushing mode operation and, in that mode, the unit is difficult to handle.

Prior to the initial grounding, the tug "GLENADA" girded but was able to return to the upright when the tow-line parted.

Neither the gyro compass nor the standard magnetic compass aboard the "TUSKER" were reliable.

The operator of the VHF R/T at the office of the tug-owner does not hold an RORC(M).


SECOND GROUNDING
DEUXIÈME ÉCHOUEMENT
REDUCED INSETS FROM U.S. CHART No. 14848
CARTOUCHES RÉDUITS DE LA CARTE N° 14848 DES É-U
DEPTHS IN FEET
PROFONDEURS EN PIEDS
APPROXIMATE POSITION SECOND GROUNDING
POSITION APPROXIMATIVE DU DEUXIÈME ÉCHOUEMENT
APPROXIMATE POSITION FIRST GROUNDING
POSITION APPROXIMATIVE DU PREMIER ÉCHOUEMENT
FIRST GROUNDING
PREMIER ÉCHOUEMENT
"TUSKER/"SCURRY"
REDUCED SECTION OF CHS CHART No. 2100
SECTION RÉDUITE DE LA CARTE N° 2100 DU SHC
DEPTHS IN METRES
PROFONDEURS EN MÈTRES
LAKE ST CLAIR
LAC SAINTE-CLAIRE
DETROIT
CHANNEL
DOWNBOUND CHANNEL
BAR POINT
TOLEDO
83°
43°
42°

"AMER ASHA"

Alongside at Quebec.

Accosté à Québec.

View from port wing of the bridge.

Vue de l'aileron de la passerelle bâbord.

"AMER ASHA"

Struck bottom Baie Verte, Nfld., October 29, 1988.

Summary

The "AMER ASHA" is a 10,974 gross ton, Panamanian-registered general cargo vessel, built in 1972. Of her five holds, one is located abaft the accommodation which is situated above the machinery space. She has a single, fixed-pitch propeller and engine orders from the wheel-house are transmitted to the engine-room by means of a telegraph.

On October 27, 1988, when the vessel arrived at Baie Verte, Nfld., to load a part cargo, she was moored, port side to the wharf, by a local pilot, leaving the starboard anchor out, with 2 shackles of chain, to assist in the unberthing manoeuvre. At 1230 on October 29, when loading had been completed and the vessel was ready to sail it was discovered that the requested pilot would not be available to unberth the "AMER ASHA" until some hours later and the master decided to sail the vessel himself. The weather was clear, the winds were light and the sea was calm.

The customary unberthing manoeuvre at Baie Verte consists of springing the vessel's stern off the wharf and backing out into the bay before swinging and weighing the anchor and heading for open water. On this occasion, however, the "AMER ASHA" began by weighing the starboard anchor and this pulled the vessel's head off the wharf. After this she moved away from the berth with her main engine ahead and the wheel hard over to starboard but as she was swinging towards open water she struck bottom off a headland close N.E. of the berth.

Initially, soundings revealed no sign of a leak but some 45 minutes later, with the vessel enroute for Quebec City, a further check indicated that No. 2 port ballast tank was taking water. The "AMER ASHA" maintained contact with Canadian Coast Guard radio stations until it could be confirmed that the leak had been stopped. The vessel arrived at Quebec City to discharge her cargo on November 1. Because of strong currents and low underwater visibility, it was decided that temporary repairs would be postponed until the vessel was in Montreal. On November 5, she sailed for Montreal where a cement box was constructed in way of the damage. This casualty caused no injury or pollution.

Findings

On October 29, 1988 the "AMER ASHA" unberthed from the Advocate Mines wharf in Baie Verte with no harbour pilot and struck bottom on a shoal as a result of a manoeuvring error. The weather was clear, the sea calm and winds were light.

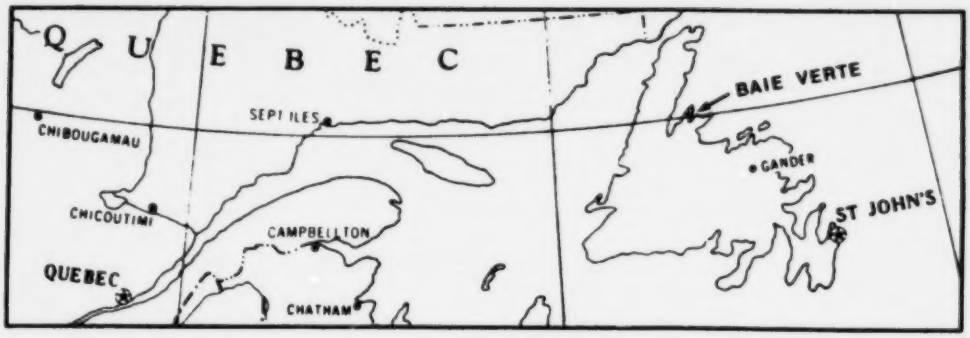
It appears that the following factors contributed to the casualty:

- the request for a pilot was not confirmed and a pilot was not dispatched;
- pilotage is optional at Baie Verte;
- the master decided to sail without a pilot despite the fact that the pilot could have been available a few hours after loading operations were completed;
- as the master was making his first call at Baie Verte, he was not familiar with the unberthing manoeuvre;
- the bottom off the Baie Verte Wharf is not good holding ground;
- the nautical chart used was of poor scaling compared to the largest-scale chart published;
- the vessel moved away from the wharf going ahead instead of astern, the latter being the manoeuvre recommended;
- the anchor was weighed before the vessel could complete her swing to starboard;
- the vessel underwent a lateral transfer to port, and the plating of No. 2 port ballast tank was ruptured as a result of bottom contact.

Other Findings

The initial sounding operation carried out after the vessel had struck the bottom did not reveal any sign of a leak, and the vessel continued to sea. However, when a leak was subsequently discovered, a CGRS was advised of the fact.

In practice, it would appear that considerably more notice is required for a vessel to obtain a pilot when departing Baie Verte than that indicated in the Annual Edition of Notices to Mariners.



"AMER ASHA"	
INSET FROM CHS CHART No.4521	CARTOUCHE DE LA CARTE N°4521 DU SHC
DEPTHS IN FATHOMS	PROFONDEURS EN BRASSES

REPRESENTATION OF UNBERTHING MANOEUVRE

REPRÉSENTATION DES MANOEUVRES DE DÉCCOSTAGE

REPRESENTATION OF PREFERRED MANOEUVRE

REPRÉSENTATION DES MANOEUVRES À EFFECTUER DE PRÉFÉRENCE

"ENERCHEM AVANCE"

"ENERCHEM AVANCE"

Grounding at Sault Ste Marie, Ontario, April 17, 1989.

Summary

The 5,924 gross ton "ENERCHEM AVANCE" is a conventional oil tanker with her bridge, engine-room and accommodation located aft. She was built in 1972 and is registered in Toronto. On the evening of April 17, 1989, she arrived at Sault Ste. Marie, Ontario, to berth at the Government wharf with a cargo of 7,488 t of spring diesel oil, drawing 6.37 m forward and 6.43 m aft.

As was the practice when making such trips, before completing loading at Sarnia the "ENERCHEM AVANCE" had contacted the office of the Captain of the Port, USCG, Sault Ste. Marie, Michigan, for the water level reading at Sault Ste. Marie. The water level then was reported to have been 0.46 m (1'6") above datum and with this information the vessel was loaded to a draught of 6.4 m. Now, some thirty-six hours later, with the "ENERCHEM AVANCE" inbound in the St. Marys river, information regarding the water level was again requested and it was reported to be 0.30 m (1'0") above datum. This meant that, in places, the depth of water available was effectively the same as the draught of the vessel.

The weather conditions were fine and clear with a light north-westerly wind as, under the conduct of the master, the "ENERCHEM AVANCE" made a slow approach to the wharf. At approximately 2250, when she was about 150 m from the wharf the vessel grounded gently and came to a stop. The vessel was freed about 25 minutes later using the main engine but, with the wind and the estimated 2 knot easterly current and despite also using the bow thruster, she grounded again, almost immediately, about 300 m farther from the wharf. After an underwater survey at 0315 revealed no major damage, some cargo was transferred within the vessel and, at 0755 with two tugs in attendance, the "ENERCHEM AVANCE" floated free, berthing unassisted at 0900, without further mishap. With the transferred cargo restored, her arrival draught was 6.37 m forward and 6.36 m aft.

The divers report indicated minor scratches to the underside of the hull and a 'V'-shaped indentation, 130 mm deep, between frames 31 and 41 at the turn of the bilge on the port side where the vessel had reportedly 'sat' on a boulder.

Findings

The "ENERCHEM AVANCE" initially grounded during the hours of darkness but otherwise fair weather conditions whilst slowly approaching her berth at Sault Ste. Marie due to an attempt to berth the vessel whilst aware that the draught and water depths were similar.

It would appear that the following factors contributed to the grounding:

- at the time of loading the vessel at Sarnia, the known water level above chart datum at Sault Ste. Marie gave the vessel an underwater clearance of 150 mm; and

- a water level obtained 2½ hours prior to arrival indicated that the draught of the vessel and the minimum water depth were similar.

Moments after the vessel floated free, she grounded a second time approximately 300 m east-south-east from the initial grounding position.

It would appear that the following factors contributed to this grounding:

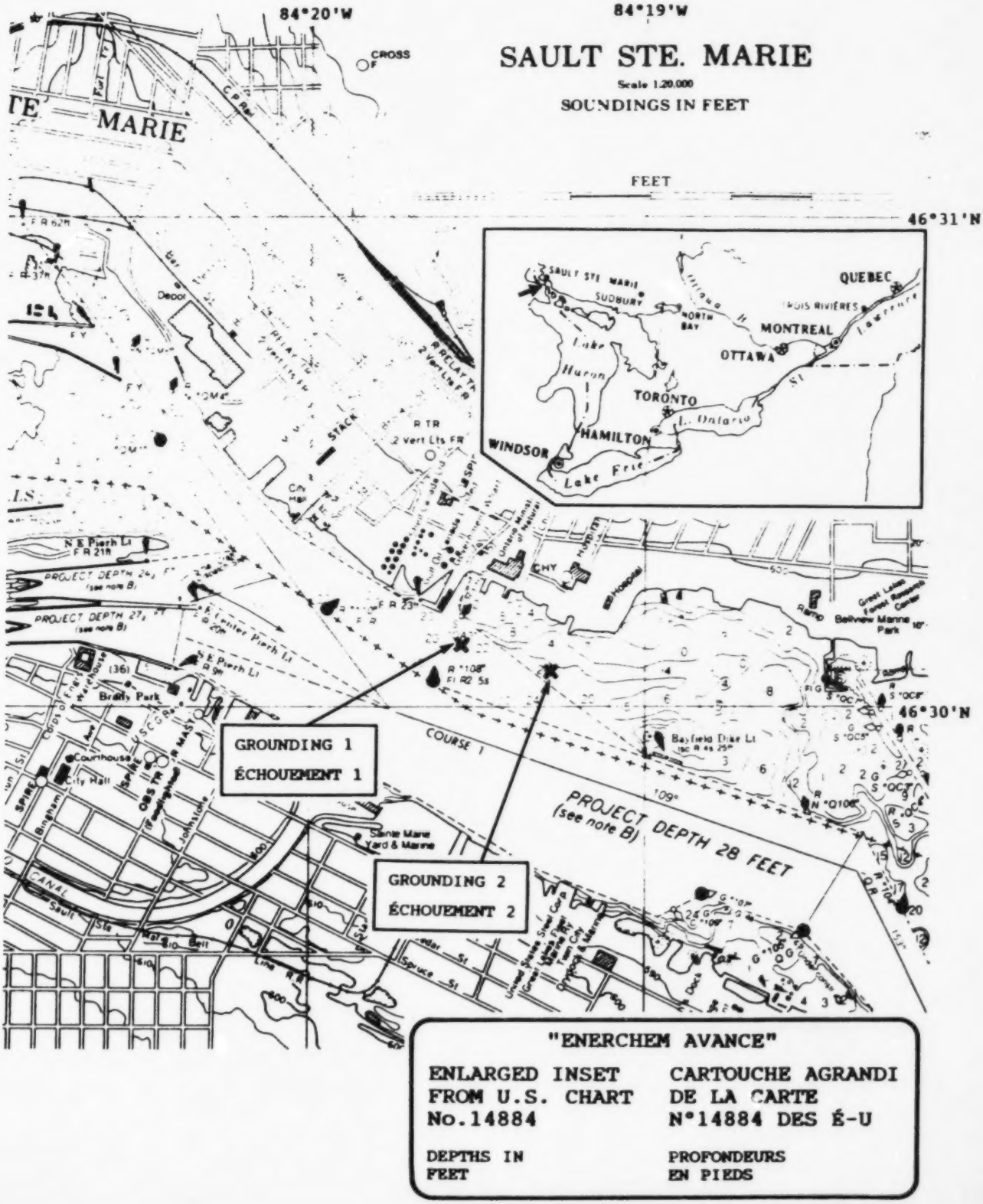
- no tug assistance had been requested when the vessel initially grounded; and

- control of the vessel was lost due to the combined effects of an easterly current and a north-easterly wind.

Other Findings

Results of an informal survey off the berth, basically confirming the charted depths, were not shared with the authorities.

The vessel's radio station license had expired.


84°20'W
84°19'W
SAULT STE. MARIE
Scale 1:20,000
SOUNDINGS IN FEET
FEET
46°31'N
46°30'N
SAULT STE MARIE
SUDBURY
NORTH BAY
QUEBEC
TROIS RIVIÈRES
MONTREAL
OTTAWA
TORONTO
HAMILTON
WINDSOR
Lake Huron
L. Ontario
Lake Erie
GROUNDING 1
ÉCHOUEMENT 1
GROUNDING 2
ÉCHOUEMENT 2
COURSE 1
PROJECT DEPTH 28 FEET
(see note B)
Bayfield Dike Lt
Brady Park
Courthouse
City Hall
Sault Ste. Marie Yard & Marina
CANAL
Spruce St
Bellevue Marine Park
"ENERCHEM AVANCE"
ENLARGED INSET FROM U.S. CHART No.14884
CARTOUCHE AGRANDI DE LA CARTE N°14884 DES É-U
DEPTHS IN FEET
PROFONDEURS EN PIEDS

"LE SAULE NO.1"

Wheel-house layout. Disposition dans la timonerie.

"LE SAULE NO. 1"

Grounding in Miramichi River, N.B., February 21, 1989.

Summary

"LE SAULE NO. 1" is a 5,114 gross ton product tanker built in 1970 and registered in Sorel, Quebec. Her bridge, engine-room and accommodation are located aft. At 0650, February 21, 1989, she left Chatham, New Brunswick, for St. Romuald, Quebec, the 5,000 t of water ballast in her tanks giving her a draught of 5.18 m forward and 6.09 m aft and her navigation under the conduct of a Miramichi river pilot.

The weather was fine and clear with a light south-easterly breeze as, preceded by the CCGV "EARL GREY", the "LE SAULE NO. 1" averaged 9 knots through the pack ice from the upper reaches of the river to the Grand Dune Flats. In this area the speed was reduced to an estimated 3½ knots over the ground as the vessel encountered heavy snow squalls reducing the visibility. The mass of ice, here about 100 mm thick, was reportedly moving bodily in a south-easterly direction at about 2 knots with the ebb tide.

Buoy M30 was not in position but this information had been broadcast to mariners through a Notship and the course was set at 064°(G) on passing buoys M31 and M34; gyro error ½° low.

Buoys M29, M28 and M27 were not observed by radar and it was only when the pilot looked astern through the wheel-house window that he observed M27 on the port quarter of the vessel at an estimated distance of 2 cables. At the same time, the visibility improved ahead and buoys M23 and M24 were sighted on the port bow at a distance of approximately one mile.

Recognizing that the vessel was running out of the channel the order 'hard-a-port' was reportedly given immediately followed by the order to steer 041°(G); the course on the Portage Island ranges being 044½°. As the vessel was steadied on her new course at 1003, she grounded gently on the Horse Shoe Bar in mud and sand, 1.7 cables due south of buoy M26.

Soundings taken around the vessel indicated that she was aground over almost her entire length and immediate efforts to free her were unsuccessful. She refloated at 1610 on the flood tide with no indication of damage or pollution and resumed her voyage.

Findings

The "LE SAULE NO. 1" grounded in the Miramichi river during a heavy snow squall, with a pilot on board, due to a navigational error.

It would appear that the following factors contributed to the casualty:

- the vessel overran her alter-course position by approximately two cables;
- in attempting to bring the vessel back into the channel, upon altering course and not certain of the vessel's position, insufficient course alteration was made;
- the vessel was reportedly affected by a south-easterly drift of ice during the ebb tide;
- no plotting was made on the chart to verify the vessel's position;
- navigation of the vessel was conducted solely by the use of, and dependence upon, the channel marking buoys, and
- three of the winter spar buoys marking the navigable channel were not seen by those navigating the vessel.

Other Findings

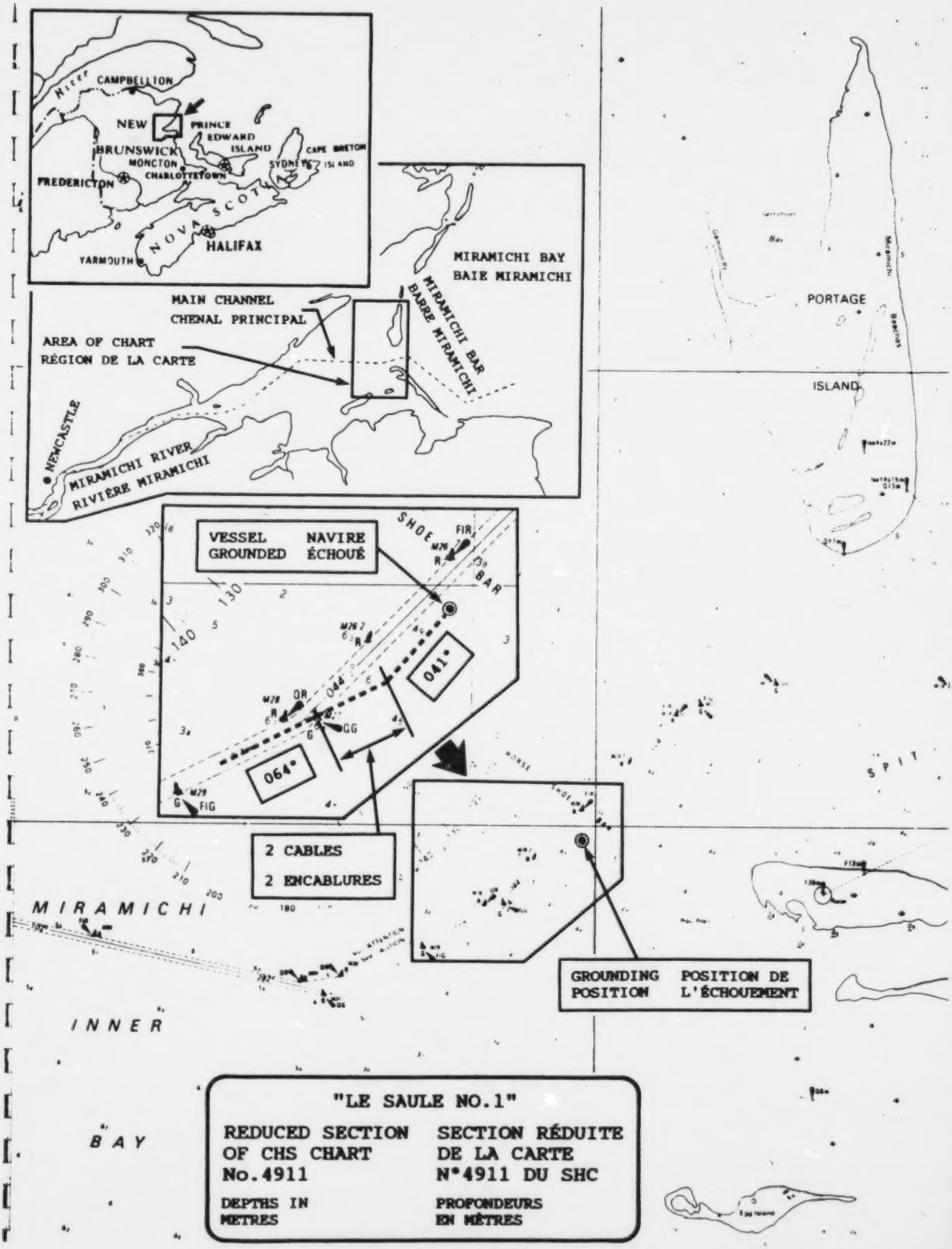
Buoy M30 was reported to be off station February 9, 1989 and Notice to Shipping M0539 was issued to that effect.

Due to the close proximity of buoy M30 to buoys M31 and M34, the absence of buoy M30 was not considered to be a contributory factor to the grounding.

Following this casualty, the missing buoy M30 was replaced.

No fog signal was sounded by the vessel during periods of reduced visibility, as required by Rules 35(a) and 35(g) of the Collision Regulations.

The course recorder and automatic steering system aboard the vessel have been inoperable for at least two years.



"LE SAULE NO.1"

REDUCED SECTION OF CHS CHART No.4911	SECTION RÉDUITE DE LA CARTE N°4911 DU SHC
DEPTHS IN METRES	PROFONDEURS EN MÈTRES

"TEQUILA SUNRISE"
and (below)
"SEA WOLF"

"TEQUILA SUNRISE"
et (en-dessous)
"SEA WOLF"

"TEQUILA SUNRISE"/"SEA WOLF"

Alleged collision off Sand Heads, B.C., January 3, 1989.

Summary

On the evening of January 3, 1989, the West German registered general cargo/container vessel "TEQUILA SUNRISE" of 1599 gross tons, part-loaded for South America, was crossing the Strait of Georgia, southbound from Sand Heads to Active Pass, enroute to the Victoria pilot station, under the conduct of a B.C. Coast pilot. Northbound in the same area at this time was the small Canadian, 9 gross ton, inshore fishing vessel "SEA WOLF", with her lone operator, bound for her home port of False Creek, Vancouver, to discharge a quantity of fish. The weather was cloudy, fine and clear, with a smooth sea and light airs.

The "TEQUILA SUNRISE" reported detecting the "SEA WOLF" between 7 and 8 miles distant, on the port bow displaying a red sidelight. As the two vessels closed, the "SEA WOLF" was lost from sight behind the fore-deck cranes and despite a course alteration to starboard by the "TEQUILA SUNRISE", the "SEA WOLF" reappeared ahead of the cranes displaying her green sidelight. She then disappeared under the bow, passing some 20 m to 30 m off in a near-miss situation.

The "SEA WOLF" reported that she was unaware of any traffic in her area and was completely taken by surprise when a ship appeared directly ahead, 14 m to 18 m distant. The operator claimed that despite his evasive action the bow of the "TEQUILA SUNRISE" struck the "SEA WOLF" a glancing blow on her starboard quarter.

The operator of the "SEA WOLF" reported the incident to Vancouver and RCC Victoria dispatched the CCG hovercraft "086" to assist. The operator of the "SEA WOLF" was found to be shaken and suffering from inhalation of carbon monoxide fumes from a previously cracked exhaust pipe. The "SEA WOLF" was towed to False Creek by the Coast Guard. The vessel had minor damage at her stern attributed to the incident.

Findings

On January 3, 1989 it was alleged that a collision took place between the West German general cargo vessel "TEQUILA SUNRISE" and the small Canadian fishing vessel "SEA WOLF" during darkness in fine and clear weather conditions off Sand Heads, B.C. The "SEA WOLF" reported minor damage as a result of the alleged collision whilst the "TEQUILA SUNRISE" reported a close quarter situation with no damage to either vessel.

It would appear that the following factors contributed to the collision/close quarter situation:

"TEQUILA SUNRISE"

- due to the position of the deck cranes and/or for other reasons unknown did not observe that the "SEA WOLF" was displaying a green sidelight until just prior to the fishing vessel disappearing under the bow of the "TEQUILA SUNRISE".

"SEA WOLF"

- did not observe the "TEQUILA SUNRISE" until after a close quarters situation had arisen;
- did not display the proper navigation lights;
- was proceeding in the separation zone between traffic lanes;
- was not equipped with a radar reflector, and
- was knowingly being operated with carbon monoxide fumes emanating from the engine compartment below the wheel-house, with detrimental effects on the sole operator.

Other Findings

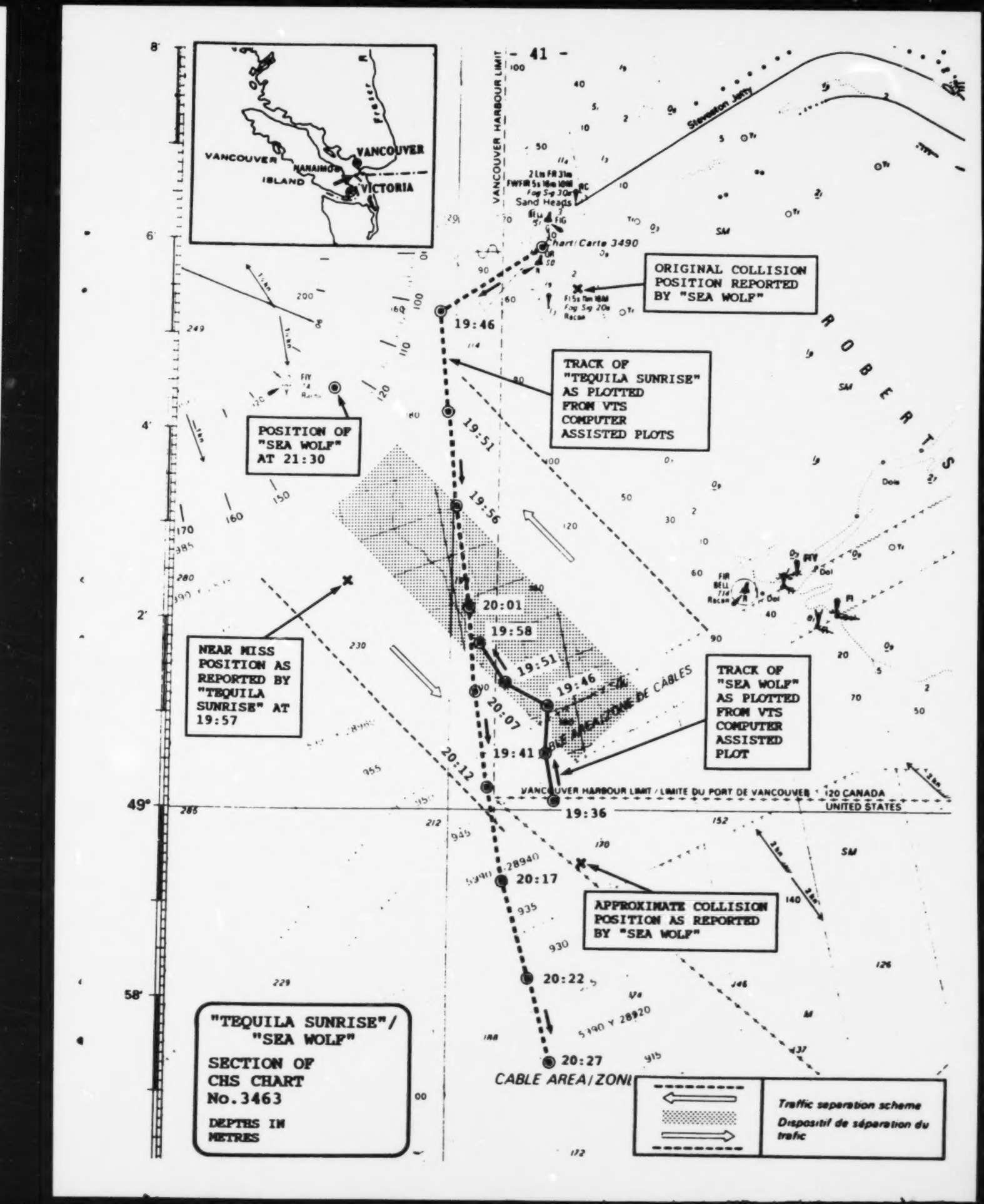
The "TEQUILA SUNRISE" did not use her VHF in an attempt to contact the approaching vessel.

The "SEA WOLF" was poorly equipped with navigational equipment particularly to traverse the Strait of Georgia in darkness with no means to fix the vessel's position and subsequently could not provide rescue services with an accurate position.

The operator of the "SEA WOLF" did not possess a Radiotelephone Operator's Restricted Certificate (Maritime) to operate the VHF.

The "SEA WOLF" was not guarding the VHF radiotelephone channel 16 and/or 11 nor was it required by regulations; however, the guarding of such channels is deemed to be good seamanship.

VTS did not warn of the danger of collision because the approach as viewed on radar was typical of so many safe close passing situations.


VANCOUVER
VANCOUVER ISLAND
NANAIMO
VICTORIA
FRASER R.
VANCOUVER HARBOUR LIMIT
Stevenston Jetty
Sand Heads
Chart/Carte 3490
ORIGINAL COLLISION POSITION REPORTED BY "SEA WOLF"
TRACK OF "TEQUILA SUNRISE" AS PLOTTED FROM VTS COMPUTER ASSISTED PLOTS
POSITION OF "SEA WOLF" AT 21:30
NEAR MISS POSITION AS REPORTED BY "TEQUILA SUNRISE" AT 19:57
TRACK OF "SEA WOLF" AS PLOTTED FROM VTS COMPUTER ASSISTED PLOT
APPROXIMATE COLLISION POSITION AS REPORTED BY "SEA WOLF"
19:46
19:51
19:56
20:01
19:58
19:51
19:46
20:07
19:41
20:12
19:36
20:17
20:22
20:27
CABLE AREA/ZONE DE CÂBLES
VANCOUVER HARBOUR LIMIT / LIMITE DU PORT DE VANCOUVER
120 CANADA
UNITED STATES
ROBERTS
"TEQUILA SUNRISE"/ "SEA WOLF"
SECTION OF CHS CHART No.3463
DEPTHS IN METRES
Traffic separation scheme
Dispositif de séparation du trafic

Glossary

CGRS	Coast Guard radio station
Cable	Fibre or wire rope; anchor chain; one tenth of a nautical mile (185 m)
(Chart) datum	Plane of reference for soundings on a chart
Dredging (an anchor)	Dragging an anchor on a short length of chain to improve vessel's manoeuvrability
Drift	Distance, or rate at which, a vessel is carried by the current
to be 'Girded'	Condition of tug being dragged sideways by athwartship towline pull, can lead to capsizing, foundering
'Kort' nozzle	Cylindrical casing fitted around propeller
Navaids	Navigation aids, as buoys, lighthouses etc.
OOW	Officer of the watch
Pike pole	Long rod, fitted with hook, used in handling lines
RORC (M)	Radiotelephone Operator's Restricted Certificate (Maritime)
Set	Direction in which a current runs
Shackle	Metal, bow-shaped, connection fitting; length of anchor cable of 15 fathoms (27.4 m)
Spring	Mooring line leading from end of vessel towards amidships; manoeuvring vessel from berth using such line.
USCG	United States Coast Guard
VTS	Vessel Traffic Services